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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,839	10/22/2003	Yoshinobu Fujuwara	042715-5011	4226

9629 7590 02/24/2005

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EXAMINER	
SINGH, RAMNANDAN P	
ART UNIT	**PAPER NUMBER**
2644	

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/689,839	FUJUWARA, YOSHINOBU	
	Examiner	Art Unit	
	Ramnandan Singh	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Pommer, II [US 4,406,927].

Regarding claim 1, Pommer, II teaches a telephone terminal equipment interface circuit shown in Fig. 3, comprising:

a diode bridge for rectifying line current supplied from a subscriber line and supplying the current to a call transmission/reception circuit; and

a forward biasing circuit supplying forward biased voltage to the diode bridge [Figs. 3, 4C, 6; col. 6, lines 34-55; col. 2, lines 38-51].

Regarding claim 2, Pommer, II further teaches the interface circuit, wherein the forward biasing circuit causes the diode bridge to operate in an activated state by supplying the forward biased voltage to the diode bridge [col. 6, lines 43-54col. 2, lines 49-51].

Regarding claim 3, Pommer, II further teaches the interface circuit, wherein the forward biasing circuit is connected in series in relation to the diode bridge [Figs. 3, 6].

Regarding claim 4, Pommer, II further teaches the interface circuit, wherein current-voltage characteristics of the telephone interface are such that both the current and the voltage increase in proportion from a starting point (i.e. linear operation) [See Fig. 2].

Kimarek et al further teach the interface circuit, wherein current-voltage characteristics of the telephone interface are such that both the current and the voltage increase in proportion from a starting point (i.e. linear operation) [col. 16, lines 29-36; col. 52, lines 40-48].

Regarding claim 5, Pommer, II further teaches the interface circuit, wherein the forwarding biasing circuit is a diode element (Z3) biased in a forward direction [Figs. 3, 6].

3. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Komarek et al [US 6,408,008 B1].

Regarding claim 1, Komarake et al teach a telephone interface circuit shown in Fig. 28, comprising:

a diode bridge (584) for rectifying line current supplied from a subscriber line; and supplying the current to a call transmission/reception circuit and

a forward biasing circuit (586) supplying forward biased voltage to the diode bridge [Figs. 1, 28; col. 55, lines 47-67; col. 52, line 26 to col. 53, line 4; col. 15, line29 to col. 16, line 36].

Regarding claims 2-3, the limitations are shown above.

Regarding claim 4, Kimarek et al further teach the interface circuit, wherein current-voltage characteristics of the telephone interface are such that both the current and the voltage increase in proportion from a starting point (i.e. linear operation) [col. 16, lines 29-36; col. 52, lines 40-48].

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(i) Heald et al [US 5,553,138] teach a telephone interface circuit to limit the voltage drop (i.e. dead zone) of a diode bridge [Fig. 4; col. , lines 1-39; col. 9, line 60 to col. 10, line 4];

(ii) Capewell [US 4,222,096] teaches a telephone interface to forward bias a rectifier diode bridge 50 [col. 5, line 15 to col. 6, line 34]; and

(iii) Todd [US 4,623,759] teaches a telephone interface with forward biasing a diode bridge 47 [Fig. 13; col. 8, lines 20-32].

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramnandan Singh whose telephone number is (703)308-6270. The examiner can normally be reached on M-F(8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Sinh can be reached on (703)-305-4040. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ramnandan Singh
Examiner
Art Unit 2644

SINH TRAN
SUPERVISORY PATENT EXAMINER